



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

THE APPLICATION OF:

ANDREW EDWARD FEIRING ET. AL.

CASE NO.: CL2275USNA

APPLICATION NO.: 10/664303

CONFIRMATION NO.: 4349

GROUP ART UNIT: 1751

EXAMINER: UNKNOWN

FILED: SEPTEMBER 16, 2003

FOR: PREPARATION AND USE OF EXO-2-FLUOROALKYL(BICYCLO[2.2.1] HEPT-5-ENES

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Respectfully submitted,

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ATTORNEY FOR APPLICANTS  
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Dated: 16 Feb 2004

Enclosures



**Complete if Known**

*(Use as many sheets as necessary)*

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of

3

10/664303

Filing Date

September 16, 2003

First Named Inventor

Andrew Edward Feiring Et. Al.

Art Unit

1751

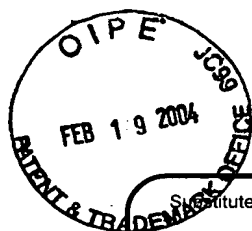
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Sheet 2 of 3

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Application Number	10/664303
Filing Date	September 16, 2003
First Named Inventor	ANDREW EDWARD FEIRING ET. AL.
Group Art Unit	1751
Examiner Name	Unknown
Attorney Docket Number	CL2275USNA

**OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS**

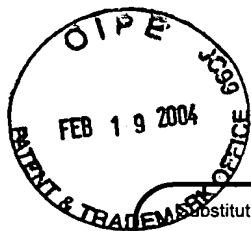
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		"Synthesis and Evaluation of Alicyclic Backbone Polymers for 193 nm Lithography" Hiroshi Ito, Norbert Seehof, Rikiya Sato, Tomonari Nakayama and Mitsuru Ueda American Chemical Society (1998) Chapter 16, pp208-223	<input type="checkbox"/>
		Journal Article (Abstract) "Vinyl Polymerization. LXXXVIII. Polymerization and Copolymerization of Endo- and Exo-5-Cyanobicyclo[2.2.1]hept-2-ene" Imoto, Minoru; Otsu, Takayuki; Ito, Toshio, Kogyo Kagaku Zasshi (1964), 67(6), 961-5	<input type="checkbox"/>
		Journal Article (Abstract) "Vinyl Polymerization. LXXII. Preparation and Polymerization of Vinyl Bicyclo[2.2.1] Heptane-2-Carboxylate", Imoto, Minoru; Otsu, Takayuki; Fukuda, Wakichi, Kogyo Kagaku Zasshi (1963), 66(6), 832-6	<input type="checkbox"/>
		Neal Brace, J. Org. Chem. 27, (1962), 3027-3032, "Free Radical Addition of Iodoperfluoroalkanes to Bicyclic Olefins"	<input type="checkbox"/>
		Makromol. Chem. 193, 2915-2927 (1992) "Transition-metal-catalyzed vinyl addition polymerizations of norbornene derivatives with ester groups"	<input type="checkbox"/>
		American Chemical Society (1985) 3269-3274, Andrew E. Feiring, "Reaction of Perfluoroalkyl Iodides with Electron Donor Nucleophiles. Addition of Perfluoroalkyl Iodides to Olefins Initiated by Electron Transfer"	<input type="checkbox"/>
		Journal of Photopolymer Science and Technology, Vol 13, Number 4 (2000) 657-664, Takashi Chiba et al. "157 nm Resist Materials: A Progress Report"	<input type="checkbox"/>
		Robert L. Augustine, "Catalytic Hydrogenation", Marcel Dekker, Inc. New York (1965), 125-146	<input type="checkbox"/>
		Louis Schmerling, J.P. Luviri and Robert W. Welch, "Some Reactions of 2,5-Norbornadiene (Bicyclo[2.2.1]-2,5-heptadiene)" (1956) Contribution from the Research and Development Laboratories, Universal Oil Products Co.	<input type="checkbox"/>
		Viacheslav A. Petrov, Synthesis 2002, No.15, 2225-2231, ISSN0039-7881 "Synthesis of Polyfluorinated Tertiary Alcohols Using Ring Opening Reactions of 2,2-Bis(trifluoromethyl)Oxirane"	<input type="checkbox"/>
		Richard A. Bartsch and John Gun Lee, J. Org. Chem (1991) 212-217 "Stereochemistry of Base-Promoted 1,2-Elimination from exo-2-Bicyclo[2.2.1]heptyl Tosylate and Chloride"	<input type="checkbox"/>

Examiner Signature	Date Considered
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		Application Number	10/664303
Sheet 3 of 3		Filing Date	September 16, 2003
		First Named Inventor	ANDREW EDWARD FEIRING ET. AL.
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		Attorney Docket Number	CL2275USNA

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		Neal O. Brace, Journal of Fluorine Chemistry, 20 (1982) 313-327 "Some Approaches to the Synthesis of Fluorinated Alcohols and Esters. II. Use of F-Alkyl Iodides for the Synthesis of F-Alkyl Alkanols"	<input type="checkbox"/>
		Raymond J. Hung et al., "Resist Materials for 157 nm Microlithography: An Update" Proceedings of SPIE Vol. 4345 (2001) 385-395	<input type="checkbox"/>
		John D. Roberts, E.R. Trumbull, Jr., Winnifred Bennett and Rose Armstrong, "The Reaction of Norbornylene with N-Bromosuccinimide, Nortricyclene and its Derivatives" (1950) Vol 72, 3116-3124 Contribution from the Department of Chemistry and Laboratory of Nuclear Science and Engineering, Massachusetts Institute of Technology	<input type="checkbox"/>
		Brian C. Trinque et al., J. Vac. Sci. Technol (2002) 531-536 "Recent advances in resists for 157 nm microlithography"	<input type="checkbox"/>
		Francis W. Michelotti and J. H. Carter, J. Am. Chem. Soc. (1965) 224-233 "Polymerization of Norbornene and Derivatives. II. Selectivity in the Polymerization of Exoisomers by Iridium Catalysis"	<input type="checkbox"/>
		Daniel p. Snaders, Eric F. Connor, and Robert H. Grubbs, Macromolecules 2002, Vol 35, 6539-6549 American Chemical Society, "Metal-Catalyzed Vinyl Addition Polymers for 157 nm Resist Applications. 2. Fluorinated Norbornenes: Synthesis, Polymerization, and Initial Imaging Results"	<input type="checkbox"/>
		Ralph R. Dammel et al., Journal of Photopolymer Science and Technology, Vol 14 (2001) 603-612 "New Resin Systems for 157 nm Lithography"	<input type="checkbox"/>
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